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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHIN, RANDALL E

ART UNIT

PAPER NUMBER

3723

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/568,076	<b>Applicant(s)</b> KIDA ET AL.	
	<b>Examiner</b> Randall Chin	<b>Art Unit</b> 3723	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 15-21, 24, 25, 28 and 29 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 22, 23, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12142009;02192010</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

On p. 13, lines 5-7, the Examiner respectfully requests clarification of the recitation "...and the ratchet 34A of the delivery reel 33 rotates in the **clockwise** direction and the delivery reel 33 rotates in the anticlockwise direction R2." (emphasis added). It appears the bolded term "clockwise" here should instead read -anticlockwise-, however, if the present language is correct, then the Examiner respectfully requests clarification of such description.

On p. 14, lines 4-6, the entire sentence "Accordingly, this cleaner 1 provides superior cleaning effects in comparison to a cleaner using a system that cleans while moving the cleaning tape or a system that cleans by rotating cleaning tape" is slightly confusing since it already appears that the apparatus shown in Fig. 1, for example, *is already* "a system that cleans while moving the cleaning tape" thus any comparison here would be unclear.

Appropriate correction is required.

### *Claim Objections*

2. Claims 1, 2, 9, 12 and 19 are objected to because of the following informalities:

Claim 1, line 6, "the cleaning tape" lacks proper antecedent basis.

Claim 1, line 8, it appears "the end surface" should read --an end surface--.

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Claim 2, line 6, "the cleaning tape" lacks proper antecedent basis.

Claim 2, line 8, it appears "the end surface" should read --an end surface--.

Claim 9, line 6, "the cleaning part rotating means" lacks antecedent basis.

Claim 12, line 3, "the cleaning part rotating means" lacks antecedent basis.

Claim 19, line 5, "a inner" should read --an inner--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-10 and 15-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Villemaire et al. 6,758,605 (hereinafter Villemaire).

As for claim 1, the patent to Villemaire discloses in Figs. 1-4 an optical fiber connector cleaner 100 (col. 1, lines 6-9) comprising a housing 120, a cleaning tape winding means 166 and cleaning tape delivery means 168 arranged inside the housing 120, a cleaning means having a tool adaptor or bar-like cleaning section 102 projecting outwardly from the housing (Fig. 2), on the front-end of the cleaning section the cleaning fabric or tape 108 delivered from the delivery means 168 being movably mounted under

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tension in an exposed state, the front-end of the cleaning section being brought into contact with the end surface of an optical fiber connector to thereby clean the end surface (col. 6, lines 51-58), a cleaning section rotating means defined by pinion gear 154, for example, coaxially connected to the cleaning section in the housing and rotatably supported with respect to the housing (Fig. 2; col. 3, lines 30-32 and col. 5, lines 52-56), and a transmission means which could include gears 130, 162, 158, 156 which rotates the winding means 166 (col. 5, lines 64-65) and the cleaning section rotating means 154 substantially simultaneously in a predetermined direction through a predetermined angle and then reverses the cleaning section rotating means to its original position (since it can oscillate as recited in col. 5, lines 52-56).

As for claim 3, the transmission means set forth above is deemed to rotate the winding means 166, the delivery means 168 and the cleaning tape rotating means 154 “substantially” (a broad term) simultaneously (Fig. 2).

As for claim 4, the cleaning section includes a hollow bar-like member 102 and a soft or “smooth” (merely a relative term) member which could be mating nose 118 arranged at the end of the bar-like member 102 (Fig. 2; col. 6, lines 51-58).

As for claim 5, the cleaning section includes a hollow bar-like member 102 and a ball or “roller” 110 rotatably mounted at the end of that bar-like member (Fig. 7).

As for claim 6, the main part of the cleaning section is a solid bar-like member or mating nose 118 (Fig. 2).

As for claims 7 and 8 reciting that the cleaning tape is cloth that has been subject to a fuzz prevention process, it should be noted that methods of forming are not

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germane to patentability in apparatus claims. In any case, only positive structural limitations are attributed patentable significance with respect to characteristics of the recited apparatus or cleaning tape. As for claim 8, use of woven cloth is known and deemed disclosed in Villemaire (col. 2, lines 13-16).

As for claim 9, Villemaire discloses that the transmission means could well include an activation means or arm that rises and lowers in vertical (merely a relative term) direction, and the transmission means is configured such that due to the downward (merely a relative term) movement of the arm the winding means 166 is rotated to a first angle in a first direction while simultaneously the cleaning section rotating means is rotated to a second angle in a second direction, moreover due to the upward movement of the arm the cleaning part rotating means is rotated to the second angle in the opposite direction to the second direction (col. 6, lines 22-31).

As for claim 10, and as explained for claim 9 above, the transmission means could include an activation arm that rises and lowers in vertical (merely relative) direction, and the transmission means is configured such that due to the downward (merely relative) movement of the arm the winding means 166 is rotated to a first angle in a first direction while the cleaning section rotating means is rotated to a second angle in a second direction and simultaneously therewith, the delivery means 168 is rotated in response to the rotation of the winding means 166, moreover due to the upward movement of the arm the cleaning part rotating means is rotated to the second angle in the opposite direction to the second direction (col. 6, lines 22-31).

As for claim 2, Villemaire similarly discloses all of the recited subject matter previously set forth for claim 1 above. It will be added that Villemaire also discloses a fabric guider assembly or cleaning tape guide means 144 coaxially connected to the cleaning section and rotatably supported in relation to the housing (col. 5, lines 58-61).

As for claim 15, Villemaire teaches in Figs. 1-4, and similarly above for claims 1 and 2, an optical fiber connector cleaner 100 comprising a housing 102 of a size that can be held in one hand, a bar-like cleaning section 102 disposed at the end of the housing and having an axis of extension, a winding means 166 and a delivery means 168 arranged inside the housing a cleaning tape 108 that is wound up by the winding means 166 after being delivered from the delivery means 168 and being wound around the end of the cleaning section, a cleaning section rotating means 154, 156, 158, 162, 130, 126, 124, etc. that rotates the cleaning section a determined amount about the axis of extension, and a manual operating part which could be a manual activation means on the housing (col. 6, lines 22-31) that drives the cleaning section rotating means simultaneously with driving the winding means 166, wherein the cleaning section includes a bar-like mating nose or inner guide member 118 around side surfaces and an end section of which the cleaning tape 108 is arranged, and an outer side guide member defined by tool adaptor 102 itself that encompasses the inner guide member 118 and the cleaning tape 108 with the end of the inner guide member 118 exposed (Fig. 2), the inner guide member 118 and the outer guide member 102 are deemed biased by springs 148, 152 (at least to an extent) to the direction of the end of the housing, independent of each other (Figs. 4A and 4B).

As for claim 16, the cleaning section 102 is supported at the base by “a shaft” (which could be any of the members shown at or near switch rod 138 in Fig. 4B, for example) disposed in the housing, and can rotate about the shaft at a determined angle in relation to the housing. Here “a shaft” is a rather broad recitation.

As for claim 17, the optical fiber connector cleaner has a sleeve or cover 146 that can be attached to and removed from the cleaning section, the cover 146 includes a tubular part having an insertion hole that can accommodate the insertion of a terminal of the male side of a connector (Fig. 4A; col. 6, lines 35-46).

As for claim 18, the cover 146 includes a cap that covers the insertion hole (Fig. 4A).

As for claim 19, Villemaire teaches in Figs. 1-4, and similarly as above for claims 1, 2 and 15, an optical fiber connector cleaner 100 for cleaning the end surface of a ferrule of an optical fiber connector comprising a housing 120, a cleaning section disposed 102 at one end of the housing, said cleaning section including a mating nose or inner guide member 118 rotatably supported in the housing about the axis of extension of the inner guide member 118, a cleaning tape 108 being supported at the end of the inner guide member in an exposed state so as to be capable of movement in the lengthwise direction of a cleaning tape, a movable operating part defined by a manual activation means disposed in the housing (col. 6, lines 22-31), a cleaning section rotation drive means 154, 156, 158, 162, 130, 126, 124, etc. that is connected to the inner guide member 118 and the operating part and rotates the inner guide member about the axis of extension in response to movement of the operating part, and a



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winding means 166 that is connected to the operating part, that winds the cleaning tape 108 in response to movement of the operating part and that advances the cleaning tape at the end of the inner guide member 118.

As for claim 20, the cleaning section rotating drive means rotates the inner guide member 118 in the forward direction of the rotation of the axis of extension in response to a first movement of the operating part and rotates the inner guide member in the backward direction returning the inner guide member to their original position in response to a second movement of the operating part, wherein the winding means has a winding gear or part 164 rotatably supported in the housing that winds the cleaning tape 108, this winding part 164 rotating in a predetermined direction to wind the cleaning tape 108 in response to either the first or the second movement of the operating part, advancing the cleaning tape at the end of the inner guide member 118.

As for claim 21, the cleaning section rotating drive means includes a pinion 154 disposed at the base of the bar-like member 118 and which can include a rack that engages with the pinion, disposed on the operating part (col. 6, lines 22-31).

As for claim 24, the cleaning section rotation drive means includes a spring 152 “connecting” the pinion and the inner guide member respectively.

As for claim 25, the cleaning section includes a guide sleeve 102 respectively that supports the inner guide member 118, the guide sleeve 102 being rotatably supported in the housing so as to change the angle of the axis of extension in relation to the longitudinal axis of the housing.

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As for claim 28, the housing 120 has a "long slender" form (merely a relative expression; Fig. 2).

As for claim 29, the cleaning section rotation drive means is mechanically connected to the inner guide member 118 and the operating part, and the winding means 166 would be mechanically connected to the operating part (col. 6, lines 22-31).

### ***Allowable Subject Matter***

5. Claims 11, 12, 22, 23, 26 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

6. Applicant's arguments with respect to claims 1-12 and 15-29 have been considered but are moot in view of the new ground(s) of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Chin whose telephone number is (571) 272-1270. The examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randall Chin/  
Primary Examiner, Art Unit 3723